

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
20 July 2000 (20.07.2000)

PCT

(10) International Publication Number
WO 00/41522 A3

- (51) International Patent Classification⁷: **C11D 3/386**, 4HE (GB). **SPEED, Lynda, Anne** [US/GB]; 21 Mayfield Road, Gosforth, Newcastle Upon Tyne NE3 4HE (GB).
17/00
- (21) International Application Number: **PCT/US00/00437** (74) Agents: **REED, T., David et al.**; The Procter & Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217-1087 (US).
- (22) International Filing Date: 7 January 2000 (07.01.2000)
- (25) Filing Language: English (81) Designated States (*national*): AE, AL, AM, AT, AT (utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ (utility model), DE, DE (utility model), DK, DK (utility model), DM, EE, EE (utility model), ES, FI, FI (utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (utility model), SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (26) Publication Language: English (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- (30) Priority Data: 60/115,379 11 January 1999 (11.01.1999) US
- (71) Applicant (*for all designated States except US*): **THE PROCTER & GAMBLE COMPANY** [US/US]; One Procter & Gamble Plaza, Cincinnati, OH 45202 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **BETTIOL, Jean-Luc, Philippe** [FR/GB]; 8 East Avenue, Benton, Newcastle Upon Tyne NE12 9PH (GB). **ZHU, Yong** [CN/US]; 4348 Bromyard Avenue, Cincinnati, OH 45241 (US). **WELLS, Eric, Christopher** [US/US]; 1440 West Kemper Road, Cincinnati, OH 45240 (US). **SHOWELL, Michael, Stanford** [US/US]; 685 Compton Road, Cincinnati, OH 45231 (US). **CONVENTS, Andre, Christian** [US/US]; 9696 Humphrye Road, Cincinnati, OH 45242 (US). **THOEN, Christiaan, Arthur, Jacques, Kamiel** [BE/US]; 8485 Rupp Farm Drive, West Chester, OH 45069 (US). **WARD, Glenn, Steven** [US/GB]; 3 Willerby Drive, Whitebridge Park, Gosforth, Newcastle Upon Tyne NE3
- Published:**
— with international search report
- (88) Date of publication of the international search report:
7 September 2001
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*



WO 00/41522 A3

(54) Title: CLEANING COMPOSITIONS CONTAINING A MULTI-FUNCTION COMPONENT AND METHOD FOR USING

(57) Abstract: The present invention relates to cleaning compositions comprising a multi-function component that is capable of hydrolyzing 1,3- β -glucans, 1,4- β -glucans and combinations of both physically and chemically linked 1,3- β -glucans and 1,4- β -glucans, and one or more cleaning adjunct materials selected from the group consisting of low foaming nonionic surfactants, hydrotropes and mixtures thereof, and methods for using the cleaning compositions for cleaning, especially tough food cleaning, or otherwise removing and/or reducing soils, especially carbohydrate soils, and/or removing or reducing spotting and films, from dishware, cookware and other hard surface substrates.

INTERNATIONAL SEARCH REPORT

In tional Application No
PCT/US 00/00437

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C11D3/386 C11D17/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C11D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, PAJ, STRAND, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 95 02675 A (PROCTER & GAMBLE) 26 January 1995 (1995-01-26) cited in the application	1-9, 18
Y	claims 1,8-13,16,17,20-24,29-36	1,3
A	page 23, line 22 -page 24, line 30 page 38, line 29 - line 33 ---	10,11
Y	WO 95 26397 A (NOVONORDISK AS) 5 October 1995 (1995-10-05) cited in the application claims 1-18 examples 4-6 page 12, line 17 -page 30, line 26 --- -/--	1,3

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another creation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "F" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

18 July 2000

Date of mailing of the international search report

25/07/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel.: (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Neys, P

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 00/00437

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 96 23873 A (NOVONORDISK AS) 8 August 1996 (1996-08-08) cited in the application claims 1-11,19-28 page 36, line 21 -page 58, line 4 -----	1,3
P.A	WO 99 27063 A (PROCTER & GAMBLE) 3 June 1999 (1999-06-03) page 54, line 9 -page 55, line 27 claims -----	1,10-22

INTERNATIONAL SEARCH REPORT

Information on patent family members

In International Application No
PCT/US 00/00437

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9502675 A	26-01-1995	AU 7069294 A	13-02-1995
		BR 9407066 A	12-03-1996
		CN 1129011 A	14-08-1996
		CZ 9600110 A	12-06-1996
		EG 20618 A	30-09-1999
		EP 0708819 A	01-05-1996
		FI 960132 A	11-03-1996
		JP 9500667 T	21-01-1997
WO 9526397 A	05-10-1995	AU 2067795 A	17-10-1995
		BR 9507229 A	16-09-1997
		CA 2186592 A	05-10-1995
		CN 1144538 A	05-03-1997
		EP 0753057 A	15-01-1997
		FI 963861 A	27-09-1996
		JP 9510617 T	28-10-1997
		US 5824531 A	20-10-1998
		US 5856164 A	05-01-1999
		ZA 9502565 A	21-12-1995
WO 9623873 A	08-08-1996	AU 4483396 A	21-08-1996
		BR 9607735 A	14-07-1998
		CA 2211405 A	08-08-1996
		CN 1172500 A	04-02-1998
		EP 0815208 A	07-01-1998
		JP 11503003 T	23-03-1999
WO 9927063 A	03-06-1999	BR 9807007 A	14-03-2000
		DE 29823751 U	13-01-2000
		EP 0973862 A	26-01-2000
		ES 2142783 T	01-05-2000

THIS PAGE BLANK (USPTO)